



UNITED STATES PATENT AND TRADEMARK OFFICE

28
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/848,930	05/19/2004	Ronald D. Smith	ITL.0225C1US (P7133C2)	5714
21906	7590	02/06/2007	EXAMINER	
TROP PRUNER & HU, PC 1616 S. VOSS ROAD, SUITE 750 HOUSTON, TX 77057-2631			AGGARWAL, YOGESH K	
			ART UNIT	PAPER NUMBER
			2622	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE		DELIVERY MODE	
3 MONTHS	02/06/2007		PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/848,930	SMITH ET AL.	
	Examiner	Art Unit	
	Yogesh K. Aggarwal	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 11/13/2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 12, 14-18 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 12, 14-18 and 31 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

Examiner's response:

1. Applicant argues with regards to claim 12 that Simerly does not teach causing a measurement of ambient white light to be taken. Simerly teaches that ASIC 40 locates the array of light emitting diodes within an image, preferably by their fixed known pattern or arrangement, and then compares the known color balance with the color balance in the rest of the scene. In this way the color balance in the rest of the scene is characterized against a known color balance, and the scaling values used to define color balance correction in auto white balance circuit 44 is set accordingly (col. 6 lines 44-55). Therefore, Simerly teaches taking an image of the scene along with array of light emitting diodes within an image in order to calibrate the images taken ~~by the~~ for the auto white balance mode. It would be inherent that when an image is taken, an ambient white light intensity (outside environment to the camera) measurement is taken. Furthermore, ambient light contains all the colors and is therefore considered as a white ambient light (containing all colors) along with the array of light emitting diodes within an image. Simerly meets the claimed limitations "causing a measurement of ambient white light to be taken".

Claim Objections

1. Claim 12 is objected to because of the following informalities:

a. "the ambient white light" and "said digital camera" lack antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 12, 14-19 and 31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. See MPEP 2106, the following is under the heading "Nonstatutory Subject Matter".

(a) Functional Descriptive Material: "Data Structures" Representing Descriptive Material *Per Se* or Computer Programs Representing Computer Listings *Per Se*

Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional inter-relationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

The following language is suggested by the examiner to overcome the 101 rejection : "A computer readable medium for storing computer instructions that, when executed on a computer, enable a processor-based system to:"

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 12, 15 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Simerly et al. (US Patent # 5,982,424).

Art Unit: 2622

[Claim 12]

2. Simerly et al. teaches an article comprising a medium (ASIC 40) for storing instructions that cause a processor based system to cause a measurement of the ambient white light intensity to be taken; illuminate a plurality of lights, each of a different wavelength; cause a measurement to be taken of the intensity of each of said lights together with the white light intensity, and calibrate said digital camera for the ambient lighting conditions using said measurement (col. 6 lines 36-55 teach illuminating an array of different color light emitting diodes during the calibration mode, wherein it is noted that each color represents a portion of the white light intensity, namely the ambient light generated by the illuminated lights is measured. Simerly teaches taking an image of the scene along with array of light emitting diodes within an image in order to calibrate the images taken by the for the auto white balance mode. It would be inherent that when an image is taken, an ambient white light intensity {outside environment to the camera} measurement is taken. Furthermore, ambient light contains all the colors and is therefore considered as a white ambient light (containing all colors) along with the array of light emitting diodes within an image. Simerly meets the claimed limitations “causing a measurement of ambient white light to be taken”).

[Claim 15]

Simerly teaches a processor-based system (ASIC 40) to cause measurements to be taken of the light transmitted by a light-emitting element coupled to said camera (col. 6 lines 36-55).

[Claim 31]

Simerly teaches illuminating an array of different color light emitting diodes during the calibration mode (col. 6 lines 36-55), wherein it is noted that each color represents a portion of

the white light intensity, namely the ambient light generated by the illuminated lights is measured.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simerly et al. (US Patent # 5,982,424) in view of (USPN 5,119,178 to Sakata et al).

[Claim 14]

Simerly does not disclose nor preclude measuring the ambient white light intensity is implemented automatically in response to the detection of a change in ambient light conditions.

It is well known in the art to measuring the ambient white light intensity automatically in response to the detection of a change in ambient light conditions as taught by Sakata et al, herein Sakata. Sakata discloses adjusting for ambient lighting conditions by using a white balance circuit wherein the white balancing is automatically preformed for different lighting conditions so as to provide an optimum white balance (column 3, lines 15-19).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have performed the calibration automatically so as to maintain an optimum white balance.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simerly et al. (US Patent # 5,982,424) in view of (USPN 6,542,185 to Bogardus).

Art Unit: 2622

[Claim 16]

Simerly does not disclose nor preclude using pattern recognition techniques. Bogardus discloses using image recognition to determine the locations of each of the color patches so as to extract the color data from the center of that region and use it to calibrate the camera (column 4, line 55 – column 5, line 30). Therefore it would have been obvious to one of ordinary skill in the art to have added image recognition to Simerly's invention so as to enable determining the location of each of the light sources for extracting data corresponding to that location for use in calibrating the camera.

8. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simerly et al. (US Patent # 5,982,424) in view of (USPN 5,852,675 to Matsuo et al).

In regards to claim 17 Simerly does not disclose nor preclude including identifying indicia on the external device. Matsuo discloses including indicia on the external device so as to correlate the optical characteristics of the external device with pre-stored information about the external device (e.g., column 9, lines 5-13). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have added identification indicia on the external device so as to load the proper pre-stored information for the external device.

In regards to claim 18 see examiners notes on the rejection of claim 17. Note that the external device in Matsuo is optically coupled to the camera.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K. Aggarwal whose telephone number is (571) 272-7360. The examiner can normally be reached on M-F 9:00AM-5:30PM.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571)-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2622

YKA

February 4, 2007



TUAN HO
PRIMARY EXAMINER